

WHAT IS CLAIMED IS:

1. A power supply apparatus in an electric vehicle, comprising:
 - drive means for energizing an electric motor;
 - control means for controlling said drive means;
 - an activating unit for activating said control means depending on a voltage value on a power supply line of said electric motor; and
 - voltage stabilizing means for stabilizing a voltage on said power supply line according to an instruction from said control means.
2. The power supply apparatus in an electric vehicle according to claim 1, wherein said voltage stabilizing means comprises a regenerative resistor disposed between said power supply line and a ground line with a relay connected thereto, and said control means controls the opening and closing of said relay to stabilize the voltage on said power supply line.
3. The power supply apparatus in an electric vehicle according to claim 1, wherein said voltage stabilizing means comprises said drive means, and said control means controls said drive means to stabilize the voltage on said power supply line.
4. The power supply apparatus in an electric vehicle according to claim 1, wherein the activating unit is a power supply state detecting circuit.
5. The power supply apparatus in an electric vehicle according to claim 4, wherein the power state supply detecting circuit includes a zener diode that is turned

on for activating the control means when the voltage on the power supply line is equal to or higher than a certain voltage.

6. The power supply apparatus in an electric vehicle according to claim 4, wherein the power state supply detecting circuit is a battery overvoltage detecting circuit for preventing an overvoltage on the power supply line and for preventing a battery of the vehicle from being overcharged.

7. The power supply apparatus in an electric vehicle according to claim 4, wherein the power state supply detecting circuit is a battery full-charge detecting circuit for detecting a fully charged state of a battery of the vehicle.

8. The power supply apparatus in an electric vehicle according to claim 1, wherein the activating unit activates said control means for stabilizing the voltage on the power supply line and preventing a battery of the vehicle from being overcharged when an overvoltage on said power supply line, even when a switch for supplying power to a motor of the vehicle is intentionally turned off.

9. The power supply apparatus in an electric vehicle according to claim 1, wherein the activating unit activates said control means for stabilizing the voltage on the power supply line even when a battery of the vehicle is removed.

10. The power supply apparatus in an electric vehicle according to claim 3, wherein the voltage on the power supply line is stabilized by reducing currents of

FETs of the drive means to weaken a magnetic field of a motor of the vehicle, thereby reducing an amount of electric power generated thereby.

11. A power supply apparatus in an electric vehicle, comprising:

- drive means for energizing an electric motor;
- control means for controlling said drive means;
- an activating unit for activating said control means depending on a voltage value on a power supply line of said electric motor; and
- voltage stabilizing means for stabilizing a voltage on said power supply line according to an instruction from said control means; and
- automatic power-off means for supplying power to activate the control means only when the voltage on the power supply line is equal to or higher than a certain value.

12. The power supply apparatus in an electric vehicle according to claim 11, wherein said voltage stabilizing means comprises a regenerative resistor disposed between said power supply line and a ground line with a relay connected thereto, and said control means controls the opening and closing of said relay to stabilize the voltage on said power supply line.

13. The power supply apparatus in an electric vehicle according to claim 11, wherein said voltage stabilizing means comprises said drive means, and said control means controls said drive means to stabilize the voltage on said power supply line.

14. The power supply apparatus in an electric vehicle according to claim 11, wherein the activating unit is a power supply state detecting circuit.

15. The power supply apparatus in an electric vehicle according to claim 14, wherein the power state supply detecting circuit includes a zener diode that is turned on for activating the control means when the voltage on the power supply line is equal to or higher than a certain voltage.

16. The power supply apparatus in an electric vehicle according to claim 14, wherein the power state supply detecting circuit is a battery overvoltage detecting circuit for preventing an overvoltage on the power supply line and for preventing a battery of the vehicle from being overcharged.

17. The power supply apparatus in an electric vehicle according to claim 14, wherein the power state supply detecting circuit is a battery full-charge detecting circuit for detecting a fully charged state of a battery of the vehicle.

18. The power supply apparatus in an electric vehicle according to claim 11, wherein the activating unit activates said control means for stabilizing the voltage on the power supply line and preventing a battery of the vehicle from being overcharged when an overvoltage on said power supply line, even when a switch for supplying power to a motor of the vehicle is intentionally turned off.

19. The power supply apparatus in an electric vehicle according to claim 11,

wherein the activating unit activates said control means for stabilizing the voltage on the power supply line even when a battery of the vehicle is removed.

20. The power supply apparatus in an electric vehicle according to claim 13, wherein the voltage on the power supply line is stabilized by reducing currents of FETs of the drive means to weaken a magnetic field of a motor of the vehicle, thereby reducing an amount of electric power generated thereby.